ments, reinforced edge **602** can be retracted back into portable device **600** after being deployed.

[0048] Although the addition of a protection element **120** to the portable device **100** is described, it should be understood that the addition of a protection element **120** is optional. For example, even though a portable device **100** may not have a protection element **120**, protection system **106** may be configured to reorient the portable device **100** such that a face of the portable device **100** with a large surface area (relative to other faces of the portable device **100**) first impacts the surface. Striking this surface spreads the force of impact across a greater area, thus minimizing damage to a portable device **100**. Additionally, although certain embodiments of protection element **120** have been described above, these embodiments are for illustrative purposes only, and it is not the intent to limit the scope of this disclosure to such embodiments. Other embodiments that are readily apparent to those skilled in the relevant art are within the spirit and scope of this disclosure.

[0049] FIG. **7** illustrates an embodiment of a portable device **700** where the reorientation element **118** includes one or more openings **702** in the portable device **700**. The portable device **700** may have more or fewer openings **702** than shown in FIG. **7**. The openings **702** may extend completely through the portable device **700** or extend only partway through the portable device **700**. The openings **702** may also be modifiable (e.g., a valve), fixed or any combination of modifiable and fixed openings.

[0050] In some embodiments, the openings **702** may be used to reorient the portable device **700** while it is traveling in the air. The openings **702** may also provide the portable device **700** with the ability to alter its angular momentum to either increase or decrease its rate of rotation. As will be discussed in more detail below, altering the rate of rotation of portable device **700** may allow protection element **120** (FIG. **1**A) to be in a position to protect portable device **700** from damage caused by impact.

[0051] As an example of using openings **702** as a reorientation element **118**, openings **702** in portable device **700** may comprise a propulsion element to allow gas to be forced through the openings **702** in order to impart an additional force to alter the orientation of the portable device **700**. In this embodiment, the openings **702** travel partway through portable device **700** so that the gas can be expelled from a side or selectable portion of portable device **700**. For example, the portable device **700** may include one or more compressed gas cartridges (not shown) and valves (not shown) that may be used to control from which openings **702** the gas is expelled and the rate of expulsion from each cartridge. By selectively expelling gas through certain openings **702** and controlling the rate of gas expelled from each opening, the angular momentum of the portable device **700** can be altered. The gas can be used to increase or decrease the rate of rotation of the portable device **700** so that at the point of impact with the surface, the portable device **700** is oriented so that a side with a protection element **120** first impacts the surface. As depicted in FIG. **7**, gas can be forced through one opening **702** on one side (e.g. top) of the portable device **700**, and gas can be forced through another opening **702** on the opposite side (bottom) of the portable device **700**. This allows extra force to increase or decrease the rate of rotation of the portable device **700**. In some embodiments, openings **702** may be adjustable in order to expel the gas in one or more directions.

[0052] According to one embodiment, as portable device **700** is travelling toward the impact surface, it may be desired to alter the orientation of the portable device **700** by thirty degrees so that the back surface (not shown) of the portable device **700** first impacts the surface. Utilizing the damage avoidance system **102**, it is determined that additional angular momentum is required in order to achieve the desired orientation before impact with the surface. Accordingly, the damage avoidance system **102** causes the reorientation element **118** to expel gas through one or more openings **702** to provide additional angular momentum to alter the orientation of portable device **700** so that a thirty degree rotation can be achieved prior to impact.

[0053] As another embodiment, the openings **702** in the portable device **700** may not use any propulsion element at all. In one embodiment, the openings **702** may extend through the portable device **700** and are modifiable from either side of the portable device **700**. For example, one or more openings **702** can be selectively opened or closed to alter the air resistance on a side of portable device **700**. A control element such as a solenoid and/or motor (not shown) in the portable device **700** may cause a cover to partially or completely block one or more of the openings **702** thereby altering the resistance on a side of the portable device **700**. By increasing or decreasing the air resistance, the orientation of portable device **700** can be altered.

[0054] In addition, reorientation element **118**, openings **702** and/or one or more of the propulsion element(s) that operate to alter or modify the orientation of portable device **700** may be used to reduce the force at the time of impact with the surface. For example, in one embodiment, gas is expelled from the openings **702** so that as portable device **700** nears the surface, the velocity of the portable device **700** is reduced.

[0055] FIGS. **8**A, **8**B and **8**C illustrate an embodiment of a portable device **800** where the reorientation element **118** includes a rotational modifier **802**. Rotational modifier **802** may be any number of components that can modify the rotation of the portable device **800**. Modifying the rotation of the portable device **800** may allow a desired side of the portable device **800** to first impact the surface.

[0056] An illustrative rotational modifier **802** may be an actuator or other type of vibration mechanism, such as a motor **804** attached to an offset weight **906** (as shown in FIGS. **8**B and **8**C). The vibration mechanism can rotate to a selected position and then vibrate on a side of the portable device **800** to provide impulses in a particular direction to increase or decrease rotation of the portable device **800**. In some embodiments, rotational modifier **802** can be a gyroscope. For example, a gyroscope can be designed to increase or decrease the rate of rotation of the portable device **800**. In operation, when the damage avoidance system **102** determines that, based on the current rate of rotation of the portable device **800**, a side of the portable device **800** without a protection element **120** will first impact the surface, the damage avoidance system **102** may cause the protection system **106** to activate a gyroscope (reorientation element **118**) to reorient portable device **800**.

[0057] While in some embodiments the rotational modifier **802** is operable to rotate the offset weight **806** such that it creates a substantially continuous vibration in the device, in other embodiments the offset weight **806** can be rotated into one or more alternative positions from its normal position in order to alter the center of mass of portable device **800**. For example, FIG. **8**B illustrates an embodiment of reorientation